

Diagnostic Evaluation of NuMI Hadron Monitor Ion Chambers

Tuesday, August 15, 2017 10:00 AM (20 minutes)

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The Hadron Monitor in the NuMI beamline is a critical piece of equipment for tracking the center position of the beam during normal operation, as well as for monitoring the target's deterioration in the long term. Over the past four years, since the current Monitor was installed, some pixels have been begun to perform poorly and the Monitor exhibits an overall loss of linearity. By analyzing data from the Hadron Monitor over that time, several potential sources of this loss have been identified. Additionally, an apparatus has been designed that will attempt to conclusively diagnose one of these sources - impurity of the He gas that floods the Hadron Monitor's ion chambers.

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